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OUR REF: 279.696US1

*** Please deliver to Examiner Jessica Lynn Sarcione in Art Unit 3766. ***

Document(s) Transmitted: Proposed Claim Amendments

Total pages of this transmission, including cover letter: 4

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In re. Patent Application of: Steven D. Girouard et al.
Serial No.: 10/788,906
Filed: February 27, 2004
Title: METHOD AND APPARATUS FOR DEVICE CONTROLLED GENE EXPRESSION

Examiner: Jessica Reidel
Group Art Unit: 3766
Docket No.: 279.696US1

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By:
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USPTO Reg. No. 39,665

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S/N 10/788,906 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Steven D. Girouard et al.	Examiner:	Jessica Reidel
Serial No.:	10/788,906	Group Art Unit:	3766
Filed:	February 27, 2004	Docket:	279.696US1
Customer No.:	45458	Confirmation No.:	4545
Title:	METHOD AND APPARATUS FOR DEVICE CONTROLLED GENE EXPRESSION		

PROPOSED CLAIM AMENDMENTS

1. (Currently Amended) A system, comprising:

an implantable gene regulatory signal delivery device that emits, in response to a gene regulatory control signal, a regulatory signal which regulates transcription from a regulatable transcriptional control element;

an implantable cardiac rhythm management (CRM) device including:

a sensor to sense a physiological signal indicative of a predetermined cardiac condition;

an event detector configured to detect the predetermined cardiac condition from the sensed physiological signal and produce one or more condition parameters related to one of a type and a degree of the predetermined cardiac condition;

and

a controller coupled to the sensor and electrically connected to the gene regulatory signal delivery device, the controller configured to produce the gene regulatory control signal, transmit the gene regulatory signal to the gene regulatory signal delivery device to trigger an emission of the regulatory signal in response to a detection of the predetermined cardiac condition, and quantitatively control the emission of the regulatory signal based on the one or more condition parameters~~, wherein the controller is electrically wired to the gene regulatory signal delivery device~~; and

one or more implantable leads providing for electrical connections between the implantable gene regulatory signal delivery device and the implantable CRM device,

wherein the controller is electrically wired to the gene regulatory signal delivery device through the electrical connections, and

wherein the regulatory signal is selected to regulate the regulatable transcriptional control element in a vector having the regulatable transcriptional control element operably linked to an open reading frame, the expression of which treats the predetermined cardiac condition.

32. (Withdrawn-Currently Amended) A system, comprising:

an implantable gene regulatory signal delivery device that emits, in response to a gene regulatory control signal, a regulatory signal which regulates transcription from a regulatable transcriptional control element; and

an implantable medical device system including:

a sensor to sense a physiological signal indicative of a predetermined cardiac condition;

an event detector configured to detect the predetermined cardiac condition from the sensed physiological signal and produce one or more condition parameters related to at least one of a type and a degree of the predetermined cardiac condition;

an implant telemetry module to receive an external command;

and

an implant controller coupled to the sensor and the implant telemetry module, the implant controller configured to quantitatively control the emission of the regulatory signal based on the one or more condition parameters and the external command~~, wherein the implant controller is electrically wired to the gene regulatory signal delivery device~~;

one or more implantable leads providing for electrical connections between the implantable gene regulatory signal delivery device and the implantable medical device,

~~one or more implantable leads providing for electrical connections between the implantable gene regulatory signal delivery device and the implantable medical device~~ wherein the implant controller is electrically wired to the gene regulatory signal delivery device through the electrical connections; and

an external system including:

an external telemetry module to transmit the external command to the implant telemetry module;

a user input device adapted to receive the external command; and

an external controller adapted to automatically analyze signals acquired by the implantable medical device and generate the external command when deemed necessary as a result of the analysis,

wherein the regulatory signal is selected to regulate a regulatable transcriptional control element in a vector having the regulatable transcriptional control element operably linked to an open reading frame, the expression of which in an effective amount treats the predetermined cardiac condition.